Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.   (Previously Presented) A communication system, comprising:

a reception angle estimator configured to estimate a reception angle of a received signal;

a determining part configured to determine a forward link Quality of Service (QoS) parameter according to a required service quality;

a weighted vector calculator configured to calculate a weighted vector using the estimated reception angle and the forward link QoS parameter; and

a transmitter configured to apply the weighted vector to the signal to be transmitted.

2.   (Previously Presented) The system of claim 1, wherein the forward link QoS parameter is determined in accordance with a QoS required for a subscriber generating the received signal.

3.   (Previously Presented) The system of claim 2, wherein the forward link QoS parameter is allocated such that an undesired signal has a gain smaller than a desired signal.

4.   (Previously Presented) The system of claim 3, wherein the forward link QoS parameter is adjusted by comparing respective subscriber QoS to a communication quality.

5.   (Original) The system of claim 1, wherein the weighted vector is calculated by changing a number of signal vectors corresponding to undesired signals and desired signals.

6.   (Previously Presented) The system of claim 5, wherein the weighted vector determines a gain by applying the forward link QoS parameter to the signal vector for the undesired signal.

7.   (Previously Presented) The system of claim 6, wherein the weighted vector determines a gain by applying the forward link QoS parameter and a direction component of the estimated reception angle of the received signal to signal vectors of undesired signals.

8.   (Original) The system of claim 5, wherein the undesired signal is at least one of a noise signal and signals of undesired subscribers.

9.   (Previously Presented) The system of claim 1, wherein the weighted vector determines a transmission gain by applying a direction component of the estimated reception angle of the received signal.

10.   (Original) The system of claim 1, wherein the weighted vector is calculated by generating at least one signal vector for forming nulls, and at least one signal vector for forming a main lobe.

11.   (Original) The system of claim 10, wherein the at least one signal vector for forming nulls is a signal vector from at least one undesired signal.

12.   (Original) The system of claim 10, wherein the at least one signal vector for forming a main lobe is a signal vector from a desired signal.

13.   (Previously Presented) The system of claim 10, wherein the at least one signal vector for forming nulls and the at least one signal vector for forming a main lobe have directions that vary with a system environment and the forward link QoS for each subscriber.

14.   (Currently Amended) The system of claim 1, wherein the weighted vector is

calculated by an equation,

$$\underline{w} = \left[\sum_{k=1}^{K} \sigma_k \underline{a}(\theta_k)\underline{a}(\theta_k)^{H}\right]^{-1} E\left[\sum_{i=1}^{L} \underline{a}(\theta_i)\right] \qquad \underline{w} = \left|\sum_{k=1}^{K} \sigma_k \bullet \underline{a}(\theta_k)\underline{a}(\theta_k)^{H} + I\right|^{-1} \bullet \left|\sum_{i=1}^{L} \underline{a}(\theta_i)\right|$$

where 'q' denotes the reception angle, 's' denotes the QoS parameter, $\underline{a}$(q) denotes a

direction vector of the received signal, 'I' denotes a size of a noise signal, 'K' denotes a

number of directions in which null or small gains are desired, 'L' denotes a number of

directions for desired signals, and 'H' denotes a Hermitian operator.

15.   (Original) The system of claim 1, wherein the communication system is a

frequency division duplex communication system.

16.   (Original) The system of claim 1, wherein the weighted vector calculator is

configured to calculate a weighted vector that maximizes a gain of a first signal and

minimizes a gain of at least one second signal.

17.   (Previously Presented) The system of claim 16, wherein the first signal is a

desired transmission signal and the at least one second signal is a noise signal.

18.   (Original) The system of claim 17, wherein the noise signal is at least one of white noise and an undesired subscriber signal.

19.   (Previously Presented) A method of transmitting a signal in a communication system, comprising:

estimating a reception angle of a received signal;

determining a forward link QoS parameter of the received signal;

calculating a weighted vector using the estimated reception angle and the forward link QoS parameter; and

applying the calculated weighted vector to a signal to be transmitted.

20.   (Previously Presented) The method of claim 19, wherein the forward link QoS parameter is determined in accordance with a QoS required for a subscriber.

21.   (Previously Presented) The method of claim 20, wherein the forward link QoS parameter allocates a relatively large value such that an undesired signal has a gain smaller than a desired signal.

22.   (Previously Presented) The method of claim 21, wherein the forward link QoS parameter value is adjusted by comparing respective QoS parameters to a communication quality.

23.   (Original) The method of claim 19, wherein the weighted vector is calculated by generating a number of signal vectors of undesired signals and desired signals.

24.   (Previously Presented) The method of claim 23, wherein the weighted vector determines a forward link gain by applying the forward link QoS parameter to the signal vector for the undesired signals.

25.   (Previously Presented) The method of claim 24, wherein the weighted vector determines the forward link gain by applying the forward link QoS parameter and a direction component of the estimated reception angle of the received signal to the signal vectors of the undesired signals.

26.   (Original) The method of claim 23, wherein the undesired signal is at least one of a noise signal and reception signals of undesired subscribers.

27.   (Previously Presented) The method of claim 26, wherein the weighted vector determines a forward link gain by applying a direction component of an estimated reception angle of a desired subscriber.

28.   (Original) The method of claim 27, wherein the reception angle may be estimated from a maximum value of the spatial spectrum.

29.   (Previously Presented) A method of transmitting a signal from a base station, comprising:

estimating a reception angle of a received signal from a first subscriber;

determining a forward link Quality of Service (QoS) parameter for the first subscriber;

transmitting a transmission signal to the first subscriber by increasing a gain in a desired signal direction and decreasing a gain in an interference signal direction in accordance with the estimated reception angle and the forward link QoS parameter.

30.   (Original) The method of claim 29, wherein increasing the gain results in a maximum gain, and wherein decreasing the gain results in a minimum gain.

31.   (Previously Presented) The method of claim 29, wherein a weighted vector is calculated using the estimated reception angle and the forward link QoS parameter, and wherein the weighted vector is applied to the transmission signal to increase the gain in the desired direction and decrease the gain in the undesired direction.

32.   (Original) The method of claim 31, wherein the weighted vector is calculated to an optimal value wherein the increase in gain results in a maximum gain, and wherein the decrease in gain results in a minimum gain.

33.   (New) The system of claim 1, wherein the forward link QoS parameter is allocated such that an undesired signal has a gain smaller than a desired signal.